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State of Utah
DEPARTMENT OF NATURAL RESOURCES
Division of Oil, Gas & Mining

ROBERT L. MORGAN
Executive Director

LOWELL P. BRAXTON
Division Director

Supervisor

Inspection Report
Minerals Regulatory Program
Report Date: October 21, 2004

Mine Name: Vernal Phosphate
Operator or Permittee Name:
Simplot Phosphates, LLC
Permittee Mailing Address:
9401 N. Hwy. 191, Vernal, UT 84078-7802

Permit number: M/047/007
Inspection Date: October 19, 2004

Inspector(s): Paul Baker and Doug Jensen

Other Participants: John Spencer

Weather: Cloudy, light rain and snow with some snow on the vegetation, 40's
Inspection Start Time: 7:00 AM
Inspection End Time: 11:00 AM
Site location/Area Inspected (i.e. Pit #): Reclaimed areas toward the north end of the mine and south of the active mining areas

Permit Status: Active
Current Acreages:
Total Permitted (Bonded): 1160
Total Disturbed:

Surface Ownership: BLM and Fee
Mineral Ownership: Fee
Mineral Mined: Phosphate
Type of Mine: Surface

Elements of Inspection	Evaluated	N/A	Comment	Enforcement
1. Permits, Revisions, Transfer, Bonds	☒	☐	☒	☐
2. Public Safety (open shafts, adits, trash, signs, highwalls)	☐	☐	☐	☐
3. Protection of Drainages	☒	☐	☒	☐
4. Explosives, magazines	☐	☐	☐	☐
5. Deleterious Material	☐	☐	☐	☐
6. Roads (maintenance, surfacing, dust control, safety)	☐	☐	☐	☐
7. Concurrent Reclamation	☒	☐	☐	☐
8. Erosion Control	☐	☐	☐	☐
9. Demolition	☐	☐	☐	☐
10. Backfilling and Grading (trenches, pits, roads, highwalls, shafts, drill holes)	☐	☐	☐	☐
11. Water Impoundments	☐	☐	☐	☐
12. Soils	☐	☐	☐	☐
13. Revegetation	☒	☐	☒	☐
14. Air Quality	☐	☐	☐	☐
15. Other	☐	☐	☐	☐

Purpose of Inspection:
There were two main purposes for the inspection. We wanted to review some of the dollar amounts for the reclamation bond, and the operator requested that the Division consider giving final release to some reclaimed areas.

Inspection Summary:
1. Permits, Revisions, Transfer, Bond
Based on the information gathered, including vegetation information, the Division will be working with the operator to develop a revised bond estimate. There have been a few changes to the buildings that will need to be evaluated.

3. Protection of Drainages
On the southwest side of the haul road starting near the feeder breaker , there is a drainage that parallels the haul road. I did not photograph this area. There has been enough water come through this area that it has eroded through the topsoil into the spoil material below. The spoil is coarse enough that it will probably not erode much deeper, but my concern is that there could be erosion to either side that would take away more soil. There are a few options the operator could pursue to remedy this problem, including diverting drainage away from the area or armoring the drainage channel.

There is no indication any of the drainage water or sediment left the site. There is a small pond that appears to have caught all the sediment.

13. Revegetation
I took vegetation cover measurements in two areas that were reseeded in 2000 or 2001. We also looked at some areas that were reseeded earlier and were rejected for release. As is common in both natural and reclaimed areas, there is a fair amount of variability in the amount of cover with the values ranging from 0 to 85 percent. The amount of cover has been negatively affected by grazing pressure from elk. There were a few hundred elk on the site during the inspection.

According to the mine plan, the cover values in adjacent undisturbed areas range from 18 percent in juniper communities below 7000 feet to 26 percent in sagebrush and mixed shrub communities above 7000 feet. The disturbances are at about 6900-7000 feet elevation, but I used the higher cover value to develop the success standard (70 percent of 26 percent or 18.2 percent).

On the west side of the haul road, we looked at areas of 26.6, 24.4, and 64.0 acres that were reclaimed in 1999, 2000, and 2001, respectively. The average cover value was 22.9 percent which meets the criterion for release. Mr. Spencer recorded a line with his GPS unit that will be the northern limit of the area we release.

On the east side of the haul road, we looked at areas of 23.7 and 6.3 acres that were seeded in 2001 and 1999. The average cover value I obtained for this area was 30.6 percent which, again, meets the release standard. There was a portion of this area, however, where there was much less perennial cover, and we decided not to release this area. Mr. Spencer used a GPS unit to mark the area that would be released.

The areas previously rejected for release include two roads of 3.6 and 2.0 acres, a 2.6-acre area reclaimed in 1999, and a 1.2-acre area next to a topsoil stockpile reclaimed in 1998. All of these were acceptable except the area next to the topsoil stockpile.

Vegetation composition is much more diverse than it has been in the past. Many of the previously reclaimed areas have a lot of grass and alfalfa with little cover from other broadleaf forbs or from shrubs. The newer areas have a lot of sagebrush seedlings, fourwing saltbush, forage kochia, and palmer penstemon in addition to the alfalfa and grasses.

Revegetation Recommendations:

1. It appears there is very little topsoil over the 1.2-acre area next to the topsoil stockpile. We suggest that some material from the stockpile be used to cover parts of this area where there is little vegetation and that these areas be reseeded.

2. The area we excluded from release on the east side of the haul road needs to be reseeded. Parts of this area have reasonable cover that should be preserved if possible, but the entire area should be drill seeded.

3. There is one area within the west release area which we suggest that the operator reseed even though we are releasing it. I believe Mr. Spencer took a few GPS points within this area. It is large enough that it could be drilled, but once there are a few inches of snow on the ground, the operator could broadcast a small amount of sagebrush (mountain big sage) and forage kochia seed over the snow. Experience in Wyoming and other areas shows that this works very well to establish these shrubs.

4. The operator needs to be very careful about storing seed. If seed is kept from one season to another, it needs to be stored at a temperature between about 40 and 70 degrees.

5. Forage kochia seed does not keep well; any seed left over should probably be scattered over the reclaimed area. It would also be best to only buy forage kochia seed of the current year's crop. This seed may not be available until about November which may be after the operator has normally finished seeding. This seed could be broadcast seeded at some time in the fall after drill seeding is complete.

6. Some species, such as forage kochia and sagebrush, should not be drilled. They could potentially be seeded with the drill, but the hoses should be pulled so the seed drops on the surface.

Inspector's Signature _____ **Date: October 21, 2004**

PBB:jb
cc: John Spencer, Operator
Pete Sokolosky, Vernal BLM
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